

## Executive Summary

### Introduction

The purpose of this study is to evaluate the various aspects of the acquisition of Pennichuck Corporation by Philadelphia Suburban Corporation. The primary focus of this study is on the Pennichuck Water Works, Inc. which services the City of Nashua.

The Pennichuck Corporation (“Pennichuck”) is a holding company that owns the following five subsidiary companies:

Pennichuck Water Works, Inc. (“Pennichuck Water Works”)

Pennichuck East Utility, Inc. (“Pennichuck East”)

Pittsfield Aqueduct Company, Inc. (“Pittsfield”)

The Southwood Corporation (“Southwood”)

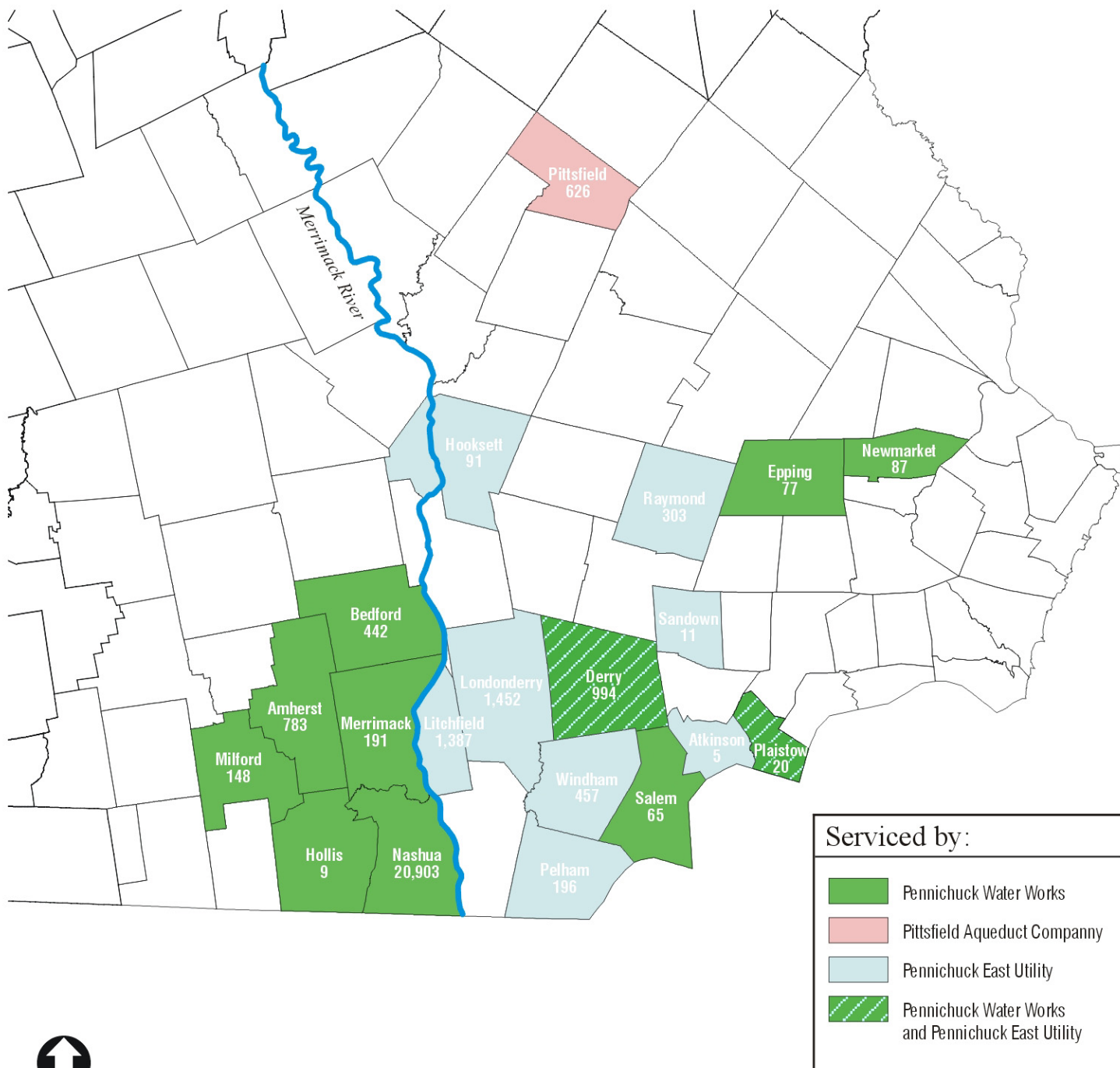
Pennichuck Water Service Corporation (“Service Corp.”)

Pennichuck Water Works, Pennichuck East and Pittsfield are water utilities that are regulated by the New Hampshire Public Utilities Commission (PUC). Southwood and the Service Corp. are not regulated by the PUC.

Pennichuck’s roots go back to 1852 when Pennichuck Water Works was first formed in the City of Nashua, NH. Over the years the company grew and acquired various land holdings in and around the Pennichuck Brook that was its primary source of water. In 1983 Pennichuck Water Works was allowed to transfer ownership of land that the PUC found was not needed for utility purposes to Southwood Corporation and Pennichuck Corporation was formed to own (“hold”) the two companies. The holding company was needed because Pennichuck Water Works would continue to be regulated by the PUC and Southwood would not be regulated. The Pennichuck Water Service Corporation, which provides contract operations, is also not regulated by the PUC.

The three water utilities serve various towns within southern New Hampshire as shown in Figure ES-1. The following describes each of those utilities:

**Pennichuck Water Works, Inc.** provides water to approximately 23,600 customers within the City of Nashua and limited areas of the Towns of Amherst, Merrimack, Milford, Hollis, Bedford, Derry, Plaistow,



Not To Scale

Epping, Salem and Newmarket. The distribution system for Pennichuck Water Works consists of 397 miles of distribution and transmission lines, six water supply ponds, two well systems, a water intake plant on the Merrimack River, 11 storage tanks and a water treatment plant located near Supply Pond in Nashua.

The primary source of water for the City of Nashua and the Towns of Merrimack, Amherst, Milford, and Hollis is the Pennichuck Brook and Merrimack River Watersheds. The Towns of Bedford, Derry, Plaistow, Epping, Salem and New Market are serviced by well systems. The Pennichuck Brook watershed lies in the towns of Nashua, Merrimack, Amherst, Milford and Hollis. The watershed drains to a chain of ponds, Stump Pond, Pennichuck Pond, Holts Pond, Bowers Pond, Harris Pond and Supply Pond. Water is withdrawn from Harris Pond and brought to the Water Treatment Plant. During drought or dry months water from the Merrimack River is discharged to Bowers Pond to supplement the demand at the Water Treatment Plant.

**Pennichuck East Utility, Inc.** supplies water to approximately 4,000 customers in the Towns of Litchfield, Pelham, Windham, Londonderry, Derry, Hooksett, Sandown, Raymond, Plaistow and Atkinson. The source for Pennichuck East is a well system owned by the Town of Hudson, located in Litchfield, New Hampshire. This water is supplemented by water from the Manchester Water Works.

**Pittsfield Aqueduct Company, Inc.** supplies water to approximately 600 customers in the Town of Pittsfield. The sole source of water for the Pittsfield system is from Berry Pond located in Pittsfield, New Hampshire. Water from this pond is treated by the Neptune Microfloc package treatment plant.

The following sections describe the main components of the Pennichuck Water Works, including recommendations for improvements and an estimate of costs to implement the improvements.

## **I. Watershed Management**

The Pennichuck Brook watershed is divided into 10 subwatersheds summarized in Table ES-1 and as shown in Figure ES-2. The total drainage area is approximately 18,000 acres.

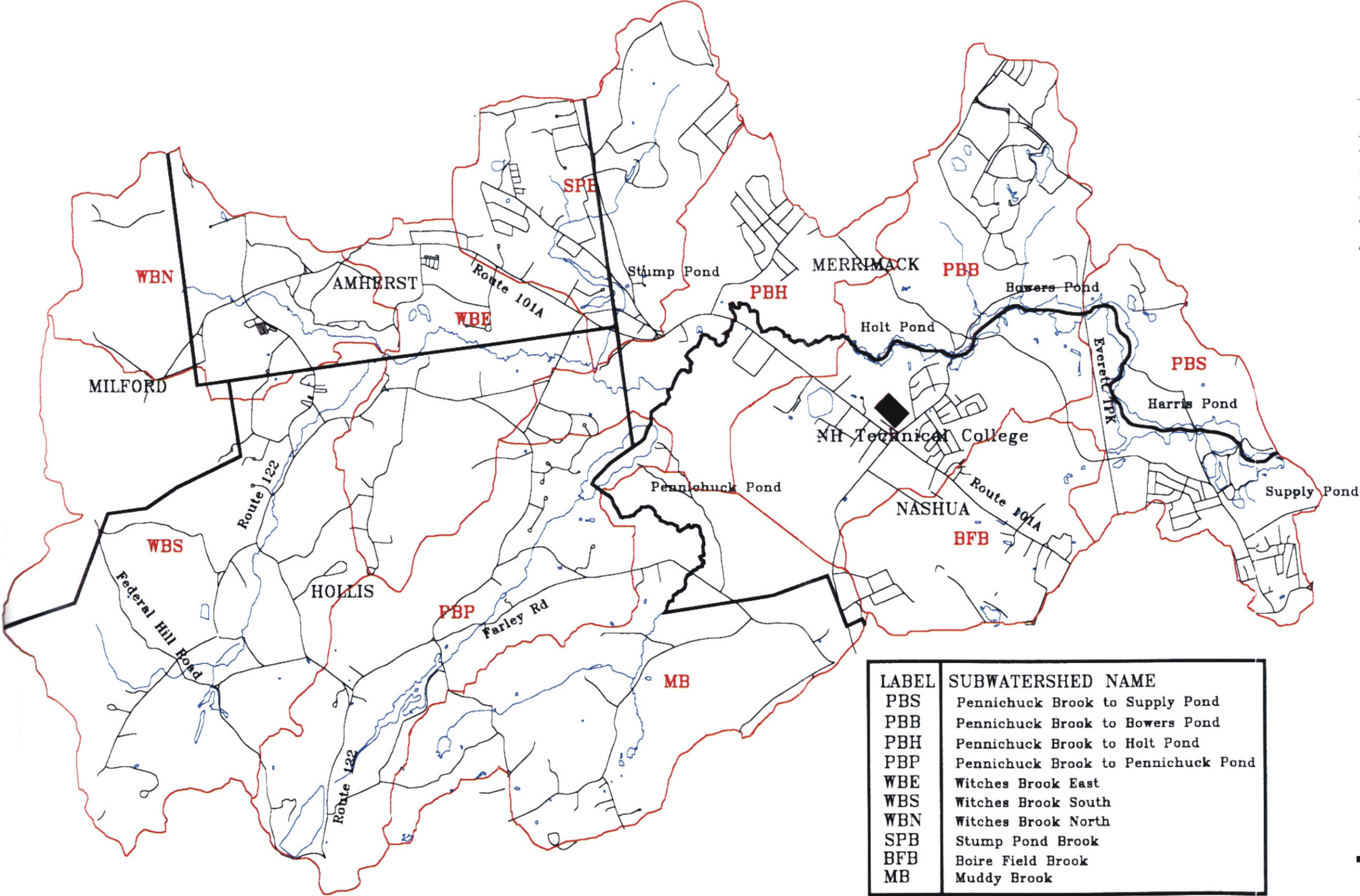
In the 1980's watershed land owned by Pennichuck Water Works was transferred and sold to Southwood Corporation for development purposes. At that time Pennichuck did not consider the land critical for watershed protection. Approximately 1,100 acres were transferred to Southwood Corporation. Of that total approximately 800 acres have been sold. The





Legend

- Watershed Boundary
- Roads
- Water
- Town Lines



estimated value of this land in 1990 dollars is 16 Million dollars. Not only were the proceeds of the land sales not reinvested in the water company, but precious land was open to development. The negative financial impact on the water company is clear. The impact of uncontrolled development is also becoming clear as the water supply ponds are silted in and the water quality deteriorates as evident by elevated bacteria and nutrient concentrations. In short losing control of watershed lands is not a wise policy, especially if the proceeds of the land sales are not reinvested to improve the system.

**Table ES-I Pennichuck Brook Watershed Characteristics**

Subwatershed <sup>(1)</sup>	Land Area (acres)	Water Surface Area (acres)
PBS – Pennichuck Brook to Supply Pond	1285	140
PBB – Pennichuck Brook to Bowers Pond	2390	94
PBH – Pennichuck Brook to Holts's Pond	1508	0
PBP – Pennichuck Brook to Pennichuck Pond	1978	89
WBE – Witches Brook East	1365	0
WBS – Witches Brook South	3193	0
WBN – Witches Brook North	1425	0
SPB – Stump Pond Brook	1516	21
BFB – Boire Field Brook	1006	0
MBI – Muddy Brook	2317	7
Total Acreage	17,984	351

(1) See Figure ES-2 for Subwatershed Locations

Source: Pennichuck Water Works Watershed Management Plan, August 1998

The Pennichuck Water Works Watershed Management Plan was published in August 1998. The plan included a summary of the existing condition of the watershed and evaluated the management measures that were in place. The plan identified deficiencies and made recommendations for implementation of appropriate watershed management measures. These recommendations are summarized in Table ES-2.

In order to assess the Pennichuck Water Works Watershed Management Plan it was compared to four other similar plans. These plans include:

- Lake Massabesic Watershed Management Plan – Manchester Water Works, New Hampshire
- Little River Watershed Protection Plan – Springfield Water and Sewer Commission, Massachusetts
- Wachusett Reservoir Watershed Protection Plan – Massachusetts District Commission and Massachusetts Water Resources Authority

- Model Watershed Management Plan – “Source Protection: A National Guidance Manual for Surface Water Supplies” by New England Interstate Water Pollution Control Commission

**Table ES-2 Pennichuck Watershed Management Plan – Summary of Recommendations**

Top 10 Problems	Recommended Actions
1. Storm Water	Reduce existing and future imperviousness
2. Minimal Protective Zones	Require a 400-foot buffer around the chain ponds and 200-feet around tributaries
3. Pond Eutrophication	Determine sediment depths in each of the ponds and dredge as needed
4. Transportation Impacts.	Work with Public Works Departments and the state Department of Transportation to avoid direct piping of runoff to streams and use BMPs
5. Agricultural Impacts	Provide education materials for agricultural landowners and request buffer strips or zones
6. Hot Spots of Pollution Sources	Use infiltration controls and provide special educational materials to service stations, car dealerships and automotive or other repair shops
7. Technical Education Needed	Hold a technical transfer workshop for Conservation Commissions, Planning Board members, Public Works staff, site developers and engineers
8. Public Education Needed	Develop a school age public education program for watershed schools and an educational questionnaire
9. Regulatory Authority Lacking	Modify watershed regulations or develop cooperative agreements with watershed towns.
10. Comprehensive Database Needed	Measurements in stream channels, conduct periodic sediment depth sampling of ponds and conduct storm water monitoring

The comparison of the different watershed plans illustrate the trend toward more aggressive watershed management. To be consistent with this trend the Pennichuck Water Works should:

1. Aggressively implement the 1998 Watershed Management Plan recommendations
2. Add to the management plan the following components:
  - Recreational management plan
  - Eutrophication controls
  - Storm water management design criteria
  - Deicing policy
  - Sanitary surveys
  - Vulnerability assessments and emergency response plans
3. Reverse the policy of selling watershed land and develop a plan to acquire or otherwise protect critical land

## II. Water Supply

The Pennichuck water system provides water to the City of Nashua through the Infilco Degremont Treatment Plant and a series of storage tanks and distribution mains. The water source for the treatment facility is provided through a series of four impoundments (Holts Pond, Bowers Pond, Harris Pond, and Supply Pond). During drought or dry months, typically during the summer, water from the Merrimack River is pumped to Bowers Pond to supplement the demand at the Water Treatment Plant.

The safe yield of the pond system has been estimated at 6 MGD. The current permitted yield of the Merrimack River ranges from 12 to 30 MGD depending on the flow in the river. Although up to 30 MGD can be withdrawn, the pumping capacity of the Merrimack River intake facility is currently limited to approximately 16 MGD. Based on the two water sources, the combined safe yield could range as low as 18 MGD in the summer. The summertime water demand in 1999 and 2001 exceeded 18 MGD. Fortunately during these years there was adequate precipitation so the ponds and Merrimack River could supply water well above their safe yields.

There are a number of conditions that bring into question the long term reliability of the water supply for Nashua and the surrounding communities served by Pennichuck Water Works. First as noted above the current summertime demand exceeds the safe yield of the combined Pond and Merrimack River supplies under prolonged drought conditions. This is made more problematic because the permitted withdrawals from the Merrimack River are up for renewal by the Corps of Engineers in 2004 and could be reduced. Further the ponds are in need of dredging and are loosing safe yield due to sediment accumulation.

Continued reliable and hopefully increased access to Merrimack River water will be critical to the future of the City of Nashua's water supply. As the Cities and Towns along the Merrimack River compete for water supply and waste water assimilation capacity, Nashua will need to forcefully make its case for a fair share allocation regardless of what position Pennichuck Water Works takes. For example Manchester is already planning for a water intake directly from the Merrimack River.

In addition to safe yield there is a water supply operational issue that needs to be addressed. The supply system is arranged such that when Merrimack River water is used, it is pumped into Bowers Pond and then delivered to the treatment plant. As such the pond and river sources cannot be separated and therefore the entire system is vulnerable to contamination regardless of where it originates in the pond system. This should be addressed within the vulnerability assessment mentioned in the previous



section or by physically installing infrastructure that enables the water utility to separate the pond and river supplies, therefore providing a secondary source for water supply.

### III. Treatment and Distribution System

Table ES-3 summarizing the major features of the Pennichuck Water Works water system including the treatment plant, water mains, meters and hydrants, pumping stations and storage tanks.

**Table ES-3 Summary of Water Distribution System**

Description of Component	Quantity	Capacity
Water Treatment Plant	1	35 MGD
Water Mains	397 Miles	<2" to 24"
Meters	19,550	NA
Fire Hydrants	2,223	NA
Pumping Stations	9	90 – 6,750 gpm
Storage Tanks	6	1.0 – 6.6 MG (21.6 MG total)

Units: LF-linear feet      MG-million gallons      gpm-gallons per minute

Source: Table 3 – Detailed Summary of Replacement Cost New Less Depreciation as of 12/31/94

There is a significant amount of uncertainty related to the current and future operation of the water treatment plant and distribution system. The water treatment plant uncertainty is based on the impact of federal regulations that will take effect over the next several years and the potential filtration and other process improvements that may be necessary to satisfy regulatory requirements. The uncertainty associated with the distribution system stems from the complexity of the piping, pumping and storage facilities and the fact that there isn't a comprehensive hydraulic model of the system. Without a model it is not possible to thoroughly understand how the facilities operate. Such knowledge is necessary to develop a master plan which includes a ranking of priority improvement projects. A model would also help evaluate both fire flows and normal system operation and focus future capital improvements where they are most needed and cost effective. The costs associated with improvements to both the treatment plant and distribution system are anticipated to be significant as discussed in the next section.

### IV. Capital and Operating Costs

A recommended capital improvements plan for the period 2002 through 2032 was prepared and is summarized in Table ES-4. Table ES-5 compares the total 5 year cost of the Pennichuck Water Works Capital Improvements Plan to the Recommended Plan presented for the next five



years. Figure ES-3 compares the recommended capital improvements identified in this study to that proposed by Pennichuck Water Works.

**Table ES-4 Recommended Capital Improvements Plan (In Million Dollars)**

Implementation	2002-2007	2008-2012 <sup>3</sup>	2013-2017 <sup>3</sup>	2018-2022 <sup>3</sup>	2023-2027 <sup>3</sup>	2028-2032 <sup>3</sup>
Dredging Supply Pond Chain System (See Section 3.1)	\$ 11.4	\$ 12.9				
Future Supply Source	Unknown					
Direct Connection from the Merrimack River Intake Line	\$ 1.5					
Upgrades to the Merrimack River Intake Facility		\$ 5.4				
Implementation of Recommendations - Watershed Management Plan (See Section 4.2)	\$ 2.4	\$ 1.5	\$ 1.7	\$ 1.9	\$ 2.2	\$ 2.5
Treatment Plant Replacements <sup>1</sup> (See Section 3.3)	\$ 1.2	\$ 1.4	\$ 1.6	\$ 1.8	\$ 2.0	\$ 2.3
Treatment Plant Upgrades to Meet Future Demands	Unknown					
Distribution System Replacement <sup>1</sup> (See Section 3.4)	\$ 13.7	\$ 15.5	\$ 17.5	\$ 19.9	\$ 22.5	\$ 25.6
Upgrades Based on Future Regulations <sup>2</sup> (See Section 3.6)	\$ 8.7	\$ 0.7	\$ 0.8	\$ 0.9	\$ 1.0	\$ 1.2
Security Improvements <sup>2</sup> (See Section 3.6)	\$ 1.5	\$ 0.6	\$ 0.7	\$ 0.8	\$ 0.9	\$ 1.0
<b>Total</b>	<b>\$ 40.1</b>	<b>\$ 33.1</b>	<b>\$ 22.3</b>	<b>\$ 25.3</b>	<b>\$ 28.6</b>	<b>\$ 32.6</b>

1 Includes replacement of those items within the Nashua system that are 10 year old or older. Newer items have not been included in this cost.

2 Refers to cost for the core system of Pennichuck Water Works (Nashua, Hollis, Merrimack, Milford and Amherst)

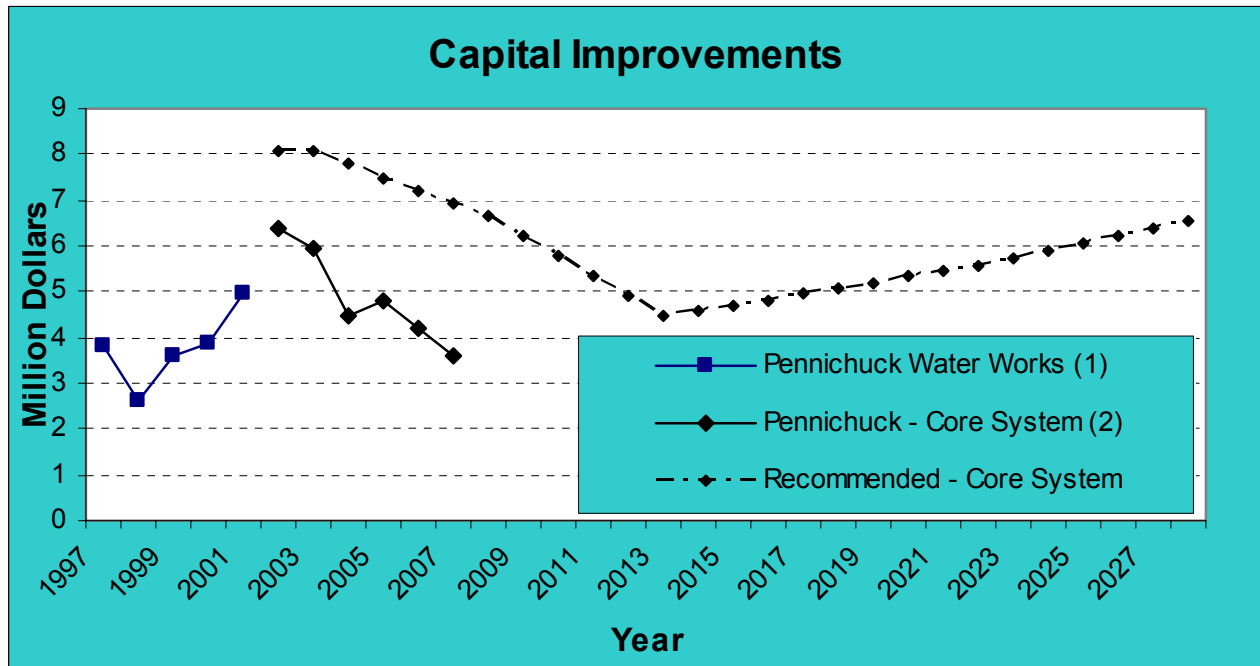
3 Future costs estimated at a rate of 2.5% per year

**Table ES-5 Capital Improvements Comparison 2002 – 2007 (In Million Dollars)**

	Pennichuck Water Works (Core System) <sup>1</sup>	Recommended Improvements
Dredging Supply Pond Chain System	\$ 0	\$ 11.4
Future Supply Source	\$ 0	Unknown
Supply & Watershed Improvements	\$ 1.5	\$ 0
Direct Connection from the Merrimack River Intake Line	\$ 0	\$ 1.5
Upgrades to the Merrimack River Intake Facility	\$ 0	\$ 0
Implementation of Recommendations - Watershed Management Plan	\$ 0	\$ 2.4
Treatment Plant Replacements	\$ 7.8	\$ 1.2
Treatment Plant Upgrades to Meet Future Demands	\$ 0	Unknown
Distribution System Replacement	\$ 16.2	\$ 13.7
Upgrades Based on Future Regulations	\$ 0	\$ 8.7
Security Improvements	\$ 0.3	\$ 1.5
<b>Total</b>	<b>\$ 25.8</b>	<b>\$ 40.4</b>

1 Taken from Exhibit K, Pennichuck Corporation and Subsidiaries, 2002 through 2006

Figure ES-3 Capital Improvements Plan



1 Taken from "Summary of Monthly Capital Expenditures," Pennichuck Water Works, Inc. 1997 - 2001.

2 Taken from Exhibit K, Pennichuck Corporation and Subsidiaries, 2002 through 2006

As shown in Figure ES-3 the results of this study indicate that Pennichuck Water Works should be investing more in water infrastructure, operation and maintenance than they are currently planning. This is necessary to maintain a reliable system in the future, and unfortunately, as the graph shows, the situation becomes worse as the years progress.

## V. Opportunities

At the present time there is a docket before the New Hampshire Public Utilities Commission (DW 02-126) in which Pennichuck and Philadelphia Suburban ask that their merger be approved. The City of Nashua has intervened in that proceeding. With respect to this docket, the City can:

1. Recommend to the NH PUC that the merger be approved.
2. Recommend the merger not be approved.
3. Recommend that the merger be approved with conditions.
4. Make no recommendation on the merger.

### Conditions of Merger

In the event the merger is approved the City can make recommendation on conditions of the merger. The City can take the position that the merger should benefit the ratepayers as well as the stockholders and that Philadelphia Suburban should commit to preserving the watershed and making the necessary capital investments required to insure the future performance of the water system. More specifically those conditions should be that Philadelphia:

1. Limit general corporate overhead charges to the Pennichuck Utilities to no more than 1.25% of water operating revenues.
2. Reduce the equity percent of total capital of the Pennichuck Utilities to 45%.
3. Implement capital improvements in the following areas:
  - Supply Pond System
  - Watershed Management
  - Treatment Plant
  - Distribution System
  - Future Regulations
  - Security
4. Invest capital improvements ranging from \$ 4.5 to \$ 8 million per year.
5. Discontinue selling land currently owned by Southwood Corporation.
6. Guarantee a 10 year rate for Pennichuck Water Works customers.
7. Eliminate fire hydrant rental fee within the core system.
8. Eliminate requirement to replace water lines at Nashua's cost.
9. PSC cannot supply water to a bottling facility.
10. Bottling facilities within the Pennichuck watershed shall be prohibited.
11. Pennichuck remain a separate corporation as a utility.

In the event the merger is not approved the City should still require that these conditions apply to Pennichuck Water Works. Alternatively if the merger is not approved the City could acquire portions of Pennichuck Corporation.

### **Acquisition of Pennichuck Water Works**

The City of Nashua's direct interest in a water supply system is the system that services the City itself. A proceeding under RSA 38 should properly be limited to the portion of PWW located within the City limits plus those mains and facilities outside the City that are dependent on the Pennichuck Water Treatment Plant for a source of water supply.

A preliminary financial evaluation was conducted to determine the benefits of City ownership of PWW versus Philadelphia Suburban (PSC) ownership. In general public ownership is financially beneficial to customers due to the fact that public entities do not pay taxes or dividends and can raise capital at much lower rates than investor owned utilities. Furthermore the public entity has the opportunity to build equity in the utility over time as the debt is paid down.

The benefits of public ownership are demonstrated in a preliminary comparative analysis of PWW's cash flow under City and PSC ownership. Tables ES-6 and ES-7 present a summary of a twenty year cash flow pro-forma for City and PSC respectively. The analysis assumes a hypothetical purchase price of \$100 million and the anticipated capital improvements program generated herein for both entities. Operating revenues and expenses are the same for both scenarios with the exception of the additional management allocation from PSC Corporate. It should be noted that this is a preliminary evaluation and additional efforts are necessary to refine the analysis. Nevertheless the general comparative trends are demonstrated. Excluding inflation, rate increases under City ownership are projected to be 28% over the 20 year projection period. Rate increases under PSC ownership are projected to be 49.5 %, almost twice the City scenario. The fact that the City can obtain capital for less than PSC is a key driver in this analysis. The PWW system has a high capital requirement associated with the improvements and replacement that are required and under City ownership these capital needs can be met at a lower cost to the customers.

Table ES-6  
SUMMARY OPERATING RESULTS  
Publicly Owned Utility - \$100,000,000

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OPERATING REVENUES - Sales of Water	\$ 14,587,781	\$ 15,789,718	\$ 17,100,282	\$ 18,529,720	\$ 20,089,247	\$ 21,434,850	\$ 22,876,267	\$ 23,804,147	\$24,770,149	\$25,775,929
OPERATING REVENUES - Other	368,371	371,402	374,487	377,628	380,825	370,880	360,993	351,166	341,400	331,696
TOTAL OPERATING REVENUES	<b>\$ 14,956,152</b>	<b>\$ 16,161,120</b>	<b>\$ 17,474,769</b>	<b>\$ 18,907,348</b>	<b>\$ 20,470,072</b>	<b>\$ 21,805,730</b>	<b>\$ 23,237,260</b>	<b>\$ 24,155,313</b>	<b>\$25,111,549</b>	<b>\$26,107,625</b>
OPERATING AND MAINTENANCE EXPENSES	\$ 6,790,128	\$ 7,036,018	\$ 7,290,970	\$ 7,555,324	\$ 7,829,433	\$ 8,113,666	\$ 8,408,399	\$ 8,714,027	\$ 9,030,959	\$ 9,359,617
NET REVENUES	<b>\$ 8,166,024</b>	<b>\$ 9,125,102</b>	<b>\$ 10,183,799</b>	<b>\$ 11,352,024</b>	<b>\$ 12,640,639</b>	<b>\$ 13,692,064</b>	<b>\$ 14,828,861</b>	<b>\$ 15,441,286</b>	<b>\$16,080,590</b>	<b>\$16,748,008</b>
DEBT SERVICE	\$ 2,519,930	\$ 2,519,930	\$ 8,890,992	\$ 9,390,992	\$ 9,390,992	\$ 11,346,976	\$ 12,846,976	\$ 13,146,976	\$13,146,976	\$13,146,976
BALANCE AFTER DEBT SERVICE	<b>\$ 5,646,094</b>	<b>\$ 6,605,172</b>	<b>\$ 1,292,807</b>	<b>\$ 1,961,032</b>	<b>\$ 3,249,647</b>	<b>\$ 2,345,088</b>	<b>\$ 1,981,885</b>	<b>\$ 2,294,310</b>	<b>\$ 2,933,614</b>	<b>\$ 3,601,032</b>
NON-OPERATING (REVENUES)/EXPENSES	\$ 2,436,338	\$ 2,542,645	\$ 1,292,807	\$ 1,961,032	\$ 2,959,300	\$ 2,345,088	\$ 1,981,885	\$ 2,294,310	\$ 2,933,614	\$ 3,601,032
NET SURPLUS (DEFICIT)	<b>\$ 3,209,756</b>	<b>\$ 4,062,527</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 290,347</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
PERCENT DEFICIENCY	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
RATE INDEXING FOR INFLATION	2.500%	2.500%	2.500%	2.500%	2.500%	2.500%	2.500%	2.500%	2.500%	2.500%
RATE INCREASE ABOVE INFLATION	2.000%	5.000%	5.000%	5.000%	5.000%	3.000%	3.000%	0.000%	0.000%	0.000%
TOTAL ANNUAL RATE INCREASE	<b>4.500%</b>	<b>7.500%</b>	<b>7.500%</b>	<b>7.500%</b>	<b>7.500%</b>	<b>5.500%</b>	<b>5.500%</b>	<b>2.500%</b>	<b>2.500%</b>	<b>2.500%</b>
CUMULATIVE RATE INCREASE	<b>4.500%</b>	<b>12.000%</b>	<b>19.500%</b>	<b>27.000%</b>	<b>34.500%</b>	<b>40.000%</b>	<b>45.500%</b>	<b>48.000%</b>	<b>50.500%</b>	<b>53.000%</b>
DEBT SERVICE COVERAGE - Required	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
DEBT SERVICE COVERAGE - Achieved	<b>3.24</b>	<b>3.62</b>	<b>1.15</b>	<b>1.21</b>	<b>1.35</b>	<b>1.21</b>	<b>1.15</b>	<b>1.17</b>	<b>1.22</b>	<b>1.27</b>

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
OPERATING REVENUES - Sales of Water	\$ 26,823,215	\$ 27,913,811	\$ 29,049,597	\$ 30,232,537	\$ 31,464,679	\$ 32,748,160	\$ 34,085,211	\$ 35,478,159	\$36,929,433	\$38,441,565
OPERATING REVENUES - Other	322,055	312,478	302,966	293,520	284,142	274,433	264,794	255,226	245,730	236,308
TOTAL OPERATING REVENUES	<b>\$ 27,145,270</b>	<b>\$ 28,226,289</b>	<b>\$ 29,352,563</b>	<b>\$ 30,526,057</b>	<b>\$ 31,748,821</b>	<b>\$ 33,022,593</b>	<b>\$ 34,350,005</b>	<b>\$ 35,733,385</b>	<b>\$37,175,163</b>	<b>\$38,677,873</b>
OPERATING AND MAINTENANCE EXPENSES	\$ 9,700,449	\$ 10,053,909	\$ 10,420,470	\$ 10,800,630	\$ 11,194,900	\$ 11,603,813	\$ 12,027,918	\$ 12,467,792	\$12,924,029	\$13,397,247
NET REVENUES	<b>\$ 17,444,821</b>	<b>\$ 18,172,380</b>	<b>\$ 18,932,093</b>	<b>\$ 19,725,427</b>	<b>\$ 20,553,921</b>	<b>\$ 21,418,780</b>	<b>\$ 22,322,087</b>	<b>\$ 23,265,593</b>	<b>\$24,251,134</b>	<b>\$25,280,626</b>
DEBT SERVICE	\$ 14,409,624	\$ 14,409,624	\$ 14,409,624	\$ 14,409,624	\$ 14,409,624	\$ 16,024,201	\$ 16,024,201	\$ 16,024,201	\$16,024,201	\$16,024,201
BALANCE AFTER DEBT SERVICE	<b>\$ 3,035,197</b>	<b>\$ 3,762,756</b>	<b>\$ 4,522,469</b>	<b>\$ 5,315,803</b>	<b>\$ 6,144,297</b>	<b>\$ 5,394,579</b>	<b>\$ 6,297,886</b>	<b>\$ 7,241,392</b>	<b>\$ 8,226,933</b>	<b>\$ 9,256,425</b>
NON-OPERATING (REVENUES)/EXPENSES	\$ 3,035,197	\$ 3,762,756	\$ 4,171,369	\$ 4,340,071	\$ 4,515,994	\$ 4,699,451	\$ 4,890,769	\$ 5,090,291	\$ 5,298,371	\$ 5,515,383
NET SURPLUS (DEFICIT)	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 351,100</b>	<b>\$ 975,732</b>	<b>\$ 1,628,303</b>	<b>\$ 695,128</b>	<b>\$ 1,407,117</b>	<b>\$ 2,151,101</b>	<b>\$ 2,928,562</b>	<b>\$ 3,741,042</b>
PERCENT DEFICIENCY	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
RATE INDEXING FOR INFLATION	2.500%	2.500%	2.500%	2.500%	2.500%	2.500%	2.500%	2.500%	2.500%	2.500%
RATE INCREASE ABOVE INFLATION	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
TOTAL ANNUAL RATE INCREASE	<b>2.500%</b>	<b>2.500%</b>	<b>2.500%</b>	<b>2.500%</b>	<b>2.500%</b>	<b>2.500%</b>	<b>2.500%</b>	<b>2.500%</b>	<b>2.500%</b>	<b>2.500%</b>
CUMULATIVE RATE INCREASE	<b>55.500%</b>	<b>58.000%</b>	<b>60.500%</b>	<b>63.000%</b>	<b>65.500%</b>	<b>68.000%</b>	<b>70.500%</b>	<b>73.000%</b>	<b>75.500%</b>	<b>78.000%</b>
DEBT SERVICE COVERAGE - Required	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
DEBT SERVICE COVERAGE - Achieved	<b>1.21</b>	<b>1.26</b>	<b>1.31</b>	<b>1.37</b>	<b>1.43</b>	<b>1.34</b>	<b>1.39</b>	<b>1.45</b>	<b>1.51</b>	<b>1.58</b>



Table ES-7  
SUMMARY OPERATING RESULTS  
Investor Owned Utility

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OPERATING REVENUES - Sales of Water	\$ 16,689,399	\$ 20,273,642	\$ 21,462,548	\$ 22,337,775	\$ 23,248,838	\$ 25,774,606	\$ 26,830,612	\$ 27,930,308	\$29,075,592	\$30,268,443
OPERATING REVENUES - Other	168,371	171,402	174,487	177,628	180,825	184,080	187,393	190,766	194,200	197,696
TOTAL OPERATING REVENUES	<b>\$ 16,857,770</b>	<b>\$ 20,445,044</b>	<b>\$ 21,637,035</b>	<b>\$ 22,515,403</b>	<b>\$ 23,429,663</b>	<b>\$ 25,958,686</b>	<b>\$ 27,018,005</b>	<b>\$ 28,121,074</b>	<b>\$29,269,792</b>	<b>\$30,466,139</b>
OPERATING AND MAINTENANCE EXPENSES	\$ 7,111,496	\$ 7,368,634	\$ 7,635,228	\$ 7,911,631	\$ 8,198,210	\$ 8,495,350	\$ 8,803,442	\$ 9,122,896	\$ 9,454,139	\$ 9,797,609
NET REVENUES	<b>\$ 9,746,274</b>	<b>\$ 13,076,410</b>	<b>\$ 14,001,807</b>	<b>\$ 14,603,772</b>	<b>\$ 15,231,453</b>	<b>\$ 17,463,336</b>	<b>\$ 18,214,563</b>	<b>\$ 18,998,178</b>	<b>\$19,815,653</b>	<b>\$20,668,530</b>
DEBT SERVICE	\$ 7,941,225	\$ 7,941,225	\$ 7,941,225	\$ 7,941,225	\$ 7,941,225	\$ 12,099,067	\$ 12,099,067	\$ 12,099,067	\$12,099,067	\$12,099,067
BALANCE AFTER DEBT SERVICE	<b>\$ 1,805,049</b>	<b>\$ 5,135,185</b>	<b>\$ 6,060,582</b>	<b>\$ 6,662,547</b>	<b>\$ 7,290,228</b>	<b>\$ 5,364,269</b>	<b>\$ 6,115,496</b>	<b>\$ 6,899,111</b>	<b>\$ 7,716,586</b>	<b>\$ 8,569,463</b>
NON-OPERATING (REVENUES)/EXPENSES	\$ 4,191,121	\$ 5,239,400	\$ 5,570,942	\$ 5,809,579	\$ 6,078,614	\$ 6,295,264	\$ 6,610,804	\$ 6,937,963	\$ 7,277,241	\$ 7,629,159
NET SURPLUS (DEFICIT)	<b>\$ (2,386,072)</b>	<b>\$ (104,215)</b>	<b>\$ 489,640</b>	<b>\$ 852,968</b>	<b>\$ 1,211,614</b>	<b>\$ (930,995)</b>	<b>\$ (495,308)</b>	<b>\$ (38,852)</b>	<b>\$ 439,345</b>	<b>\$ 940,304</b>
PERCENT DEFICIENCY	16.683%	0.584%	0.000%	0.000%	0.000%	4.024%	2.052%	0.154%	0.000%	0.000%
RATE INDEXING FOR INFLATION	2.500%	2.500%	2.500%	2.500%	2.500%	2.500%	2.500%	2.500%	2.500%	2.500%
RATE INCREASE ABOVE INFLATION	20.000%	20.000%	2.000%	0.000%	0.000%	7.500%	0.000%	0.000%	0.000%	0.000%
TOTAL ANNUAL RATE INCREASE	<b>22.500%</b>	<b>22.500%</b>	<b>4.500%</b>	<b>2.500%</b>	<b>2.500%</b>	<b>10.000%</b>	<b>2.500%</b>	<b>2.500%</b>	<b>2.500%</b>	<b>2.500%</b>
CUMULATIVE RATE INCREASE	<b>22.500%</b>	<b>45.000%</b>	<b>49.500%</b>	<b>52.000%</b>	<b>54.500%</b>	<b>64.500%</b>	<b>67.000%</b>	<b>69.500%</b>	<b>72.000%</b>	<b>74.500%</b>

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
OPERATING REVENUES - Sales of Water	\$ 32,906,826	\$ 34,261,755	\$ 35,673,359	\$ 37,144,101	\$ 38,676,550	\$ 38,462,480	\$ 40,047,818	\$ 41,699,841	\$43,421,447	\$45,215,657
OPERATING REVENUES - Other	201,255	204,878	208,566	212,320	216,142	220,033	223,994	228,026	232,130	236,308
TOTAL OPERATING REVENUES	<b>\$ 33,108,081</b>	<b>\$ 34,466,633</b>	<b>\$ 35,881,925</b>	<b>\$ 37,356,421</b>	<b>\$ 38,892,692</b>	<b>\$ 38,682,513</b>	<b>\$ 40,271,812</b>	<b>\$ 41,927,867</b>	<b>\$43,653,577</b>	<b>\$45,451,965</b>
OPERATING AND MAINTENANCE EXPENSES	\$ 10,153,770	\$ 10,523,096	\$ 10,906,078	\$ 11,303,234	\$ 11,715,095	\$ 12,142,215	\$ 12,585,165	\$ 13,044,542	\$13,520,965	\$14,015,076
NET REVENUES	<b>\$ 22,954,311</b>	<b>\$ 23,943,537</b>	<b>\$ 24,975,847</b>	<b>\$ 26,053,187</b>	<b>\$ 27,177,597</b>	<b>\$ 26,540,298</b>	<b>\$ 27,686,647</b>	<b>\$ 28,883,325</b>	<b>\$30,132,612</b>	<b>\$31,436,889</b>
DEBT SERVICE	\$ 16,276,826	\$ 16,276,826	\$ 16,276,826	\$ 16,276,826	\$ 16,276,826	\$ 18,970,709	\$ 18,970,709	\$ 18,970,709	\$18,970,709	\$18,970,709
BALANCE AFTER DEBT SERVICE	<b>\$ 6,677,485</b>	<b>\$ 7,666,711</b>	<b>\$ 8,699,021</b>	<b>\$ 9,776,361</b>	<b>\$ 10,900,771</b>	<b>\$ 7,569,589</b>	<b>\$ 8,715,938</b>	<b>\$ 9,912,616</b>	<b>\$11,161,903</b>	<b>\$12,466,180</b>
NON-OPERATING (REVENUES)/EXPENSES	\$ 7,877,527	\$ 8,280,245	\$ 8,698,033	\$ 9,131,539	\$ 9,581,444	\$ 8,969,682	\$ 9,436,606	\$ 9,921,059	\$10,423,798	\$10,945,615
NET SURPLUS (DEFICIT)	<b>\$ (1,200,042)</b>	<b>\$ (613,534)</b>	<b>\$ 988</b>	<b>\$ 644,822</b>	<b>\$ 1,319,327</b>	<b>\$ (1,400,093)</b>	<b>\$ (720,668)</b>	<b>\$ (8,443)</b>	<b>\$ 738,105</b>	<b>\$ 1,520,565</b>
PERCENT DEFICIENCY	3.999%	1.959%	0.000%	0.000%	0.000%	3.965%	1.956%	0.022%	0.000%	0.000%
RATE INDEXING FOR INFLATION	2.500%	2.500%	2.500%	2.500%	2.500%	2.500%	2.500%	2.500%	2.500%	2.500%
RATE INCREASE ABOVE INFLATION	5.000%	0.000%	0.000%	0.000%	0.000%	-5.000%	0.000%	0.000%	0.000%	0.000%
TOTAL ANNUAL RATE INCREASE	<b>7.500%</b>	<b>2.500%</b>	<b>2.500%</b>	<b>2.500%</b>	<b>2.500%</b>	<b>-2.500%</b>	<b>2.500%</b>	<b>2.500%</b>	<b>2.500%</b>	<b>2.500%</b>
CUMULATIVE RATE INCREASE	<b>82.000%</b>	<b>84.500%</b>	<b>87.000%</b>	<b>89.500%</b>	<b>92.000%</b>	<b>89.500%</b>	<b>92.000%</b>	<b>94.500%</b>	<b>97.000%</b>	<b>99.500%</b>

In addition to the rate impacts on customers another financial issue to consider is the equity component in the system. Under PSC ownership customer payments accrue to the equity of a utility that is held for the benefit of its shareholders, however under public ownership the payments accrue to a utility that is held for the benefits of the customers it serves. This can be expressed in simple terms as renting versus owning. Over time as debt principal is paid and additions are made the utility increases in value and equity. The PSC ownership scenario is analogous to renting where at the end of the term the customers paying user rates have nothing to show for their payments. Under City ownership the customers gain equity in the system which can be leveraged in the future for their benefit.

At this time purchasing the utility would be advantageous due to the fact that there is a willing seller and the utility has high capital requirements that allow the City to maximize its ability to acquire capital. The acquisition would allow for not only lower rates to customers in the future but would also allow the City to build equity in the utility system.